

## AMENDMENTS TO THE SPECIFICATION

Please insert following section at page 1, line 3, above the section entitled “Technical Field” :

### -- RELATED APPLICATIONS

This application is a national phase application of PCT Application Serial Number PCT/EE2003/000006 filed November 28, 2003, which, in turn, claims priority to Estonian Application No. P200200677, filed December 6, 2002. Each of these applications is herein incorporated in its entirety by reference. --

Please replace the heading beginning at page 1, line 19, with the following rewritten paragraph:

-- ~~Related Prior Art~~ Background. --

Please replace the paragraph beginning at page 3, line 5, with the following rewritten paragraph:

--US patent 5 063 937, A61B 5/05, “*Multiple frequency bio-impedance measurement system*”, B.N.Ezenwa, W.P.Couch, Nov 12, 1991, describes the closest ~~prior art~~ reference. In this document there is described a solution for a device for noninvasive measurement of the bio-impedance of a living tissue, according to which the component of interest of the excitation response of the bio-impedance (its active or reactive part) is demodulated by a synchronous detector, the reference signal of which is a rectangular wave signal being in phase or in quadrature with the excitation signal.—

Please replace the paragraph beginning at page 4, line 9, with the following rewritten paragraph:

-- The purpose of the invention is to increase the accuracy of measurements of the electrical impedance and/or immittance, using the switch-mode generation and demodulation of signals in

the case of both analogue and digital signal processing, retaining at the same time the characteristic simplicity of the measurement method, as well as the simplicity and low energy consumption of the measuring device. The undesirable effects caused by both the higher odd harmonics contained in the rectangular wave signals and by the sensitivity of traditional synchronous detectors to odd higher harmonics are essentially suppressed, minimized, or in some embodiments, eliminated.--

Please replace the paragraph beginning at page 5, line 1, with the following rewritten paragraph:

--~~The essence of the A feature of one~~ measurement method according to the invention lies in reducing of the harmonics content of periodic and symmetrically bipolar pulse wave signals through shortening the duration of their constant value sections by a predetermined time intervals, during which the signals can have different values, including the zero value (Fig 2A). The zero value signal intervals present the simplest case of the method. The zero value means an absence of the signals physically and denote a stepwise transition of the signal from one discrete value to another. These signal transitions can be, but must not be stepwise in principle. For example, the transitions can have different stepwise forms, or completely or piecewise linear forms as well. Only the shortening of the constant value sections of the signals by the predetermined time intervals has the principal significance. --

Please replace the paragraph beginning at page 6, line 24, with the following rewritten paragraph:

--Fig 1 is a simplified graphical presentation of the method for measurement of the electrical bio-impedance together with the signal waveforms of ~~essential~~ inputs.--

Please replace the paragraph beginning at page 8, line 20, with the following rewritten paragraph:

--In comparison with the known prior art solutions based on using of rectangular signals the proposed method has an error level, which is approximately one decimal order smaller at the output 203 of the synchronous detector 200 (maximum measurement error is reduced from 24% to 2.5%), which is an error level acceptable for most practical measurements in the respective field.--